

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-11 (canceled)

Claim 12 (original): An amplifier having dual modes of operation, comprising:

 a first differential amplifier receiving a first pair of differential input signals and having a first output terminal;

 a second differential amplifier receiving a second pair of differential input signals and having a second output terminal;

 a first coupling circuit for coupling first corresponding ones of the first and second pairs of differential input signals; and

 a second coupling circuit for coupling second corresponding ones of the first and second pairs of differential input signals,

 wherein the first and second coupling circuits are controlled by a control signal, wherein a first value of the control signal activates the first and second coupling circuits so that the first and second differential amplifiers provide a differential signal at the first and second output terminals in response to the first and second pairs of differential input signals, and wherein a second value of the control signal deactivates the first and second coupling circuits so that the first and second differential amplifiers operate independently to provide single ended signals at the first and second output terminals in response to the first and second pairs of differential input signals, respectively.

Claim 13 (original): The amplifier of claim 12 wherein the first differential amplifier includes:

 a first pair of transistors connected in series; and

 a second pair of transistors connected in series,

 wherein the first pair of transistors is connected in parallel with the second pair of transistors.

Claim 14 (original): The amplifier of claim 13 wherein the second differential amplifier includes:

 a third pair of transistors connected in series; and

 a fourth pair of transistors connected in series,

wherein the third pair of transistors is connected in parallel with the fourth pair of transistors.

Claim 15 (original): The amplifier of claim 12 wherein the first and second coupling circuits each include a pair of transistors connected in parallel, wherein the control signal activates and deactivates the pair of transistors.

Claim 16 (original): The amplifier of claim 12 wherein:

the first differential amplifier includes a first pair of transistors connected in series for driving a first signal at the first output terminal; and

the second differential amplifier includes a second pair of transistors connected in series for driving a second signal at the second output terminal.

Claim 17 (original): The amplifier of claim 12 wherein the first and second differential amplifiers each include a circuit element controlled by a power control signal for selectively operating the amplifier in a voltage mode and a current mode.

Claim 18 (original): The amplifier of claim 12 wherein:

the first differential amplifier includes a first pair of transistors for receiving the first pair of differential input signals; and

the second differential amplifier includes a second pair of transistors for receiving the second pair of differential input signals.

Claim 19 (original): The amplifier of claim 12, further including first and second transistors connected in parallel, the first transistor connected with the first differential amplifier and the second transistor connected with the second differential amplifier, wherein the first and second transistors provide current source biasing for the first and second differential amplifiers, respectively.

Claim 20 (canceled)

Claim 21 (new): A method for providing dual modes of operation in an amplifier using only one set of output terminals, comprising:

receiving a first pair of differential input signals;

receiving a second pair of differential input signals; and

using a control signal to activate a first and second coupling circuits for coupling first and second corresponding ones, respectively, of the first and second pairs of differential input signals, the using step including:

activating the first and second coupling circuits, in response to a first value of the control signal, to provide a differential signal at first and second output terminals in response to the first and second pairs of differential input signals; and

deactivating the first and second coupling circuits, in response to a second value of the control signal, to provide single ended signals at the first and second output terminals in response to the first and second pairs of differential input signals, respectively.

Claim 22 (new): The method of claim 21 wherein:

the receiving the first pair step includes using a first differential amplifier to receive the first pair of differential input signals; and

the receiving the second pair step includes using a second differential amplifier to receive the second pair of differential input signals.

Claim 23 (new): The method of claim 21 wherein:

the activating step includes activating first and second pairs of transistors connected in parallel; and

the deactivating step includes deactivating the first and second pairs of transistors.

Claim 24 (new): The method of claim 21, further including selectively operating the amplifier in a voltage mode and a current mode.

Claim 25 (new): The method of claim 22, further including providing current source biasing to the first and second differential amplifiers.